

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF OHIO  
EASTERN DIVISION

EMSAT ADVANCED GEO-LOCATION )	
TECHNOLOGY, LLC and LOCATION )	
BASED SERVICES LLC, )	CASE NO. 4:08 CV 817
)	
Plaintiffs, )	JUDGE JOHN R. ADAMS
v. )	
)	
T-MOBILE USA, INC., and GOOGLE, )	
INC., )	
)	
Defendants. )	
)	
)	
EMSAT ADVANCED GEO-LOCATION )	CASE NO. 4:08 CV 822
TECHNOLOGY, LLC and LOCATION )	
BASED SERVICES LLC, )	JUDGE JOHN R. ADAMS
)	
Plaintiffs, )	
)	
v. )	
)	
AT&T MOBILITY LLC f/k/a CINGULAR )	
WIRELESS LLC, and TRACFONE )	
WIRELESS, INC., )	
)	
Defendants. )	

**MEMORANDUM OF OPINION AND ORDER**

These related patent infringement cases are before the Court for purposes of claim construction. Plaintiffs EMSAT Advanced Geo-Location Technology, LLC (“EMSAT”) and Location Based Services LLC (“LBS”) contend Defendants T-Mobile USA, Inc. (“T-Mobile”), AT&T Mobility LLC (“AT&T”) and Tracfone Wireless, Inc. (“Tracfone”) infringe various claims of four U.S. patents: U.S. Patent No. 5,946,611 issued August 31, 1999 (the ‘611 patent); U.S.

Patent No. 6,324,404 issued November 27, 2001 (the ‘404 patent), U.S. Patent No. 6,847,822 issued January 25, 2005 (the ‘822 patent); and U.S. Patent No. 7,289,763 issued October 30, 2007 (the ‘763 patent). The parties have submitted briefs and proposed constructions regarding various disputed claim terms. In addition, on May 10, 2010, a claim construction hearing was held at which the parties presented oral argument. Also pending before the Court and related to claim construction is Defendants’ Motion for Partial Summary Judgment of Invalidity. (Case No. 08 CV 817, Doc. 94; Case No. 08 CV 822, Doc. Nos. 115, 116.) That motion is fully briefed and ready for decision.

### **I. Background**

The patents-in-suit are each entitled “Cellular Telephone System That Uses Position Of A Mobile Unit To Make Call Management Decisions” and all claim priority to a parent application filed in 1991.

As alleged by Plaintiffs, cellular telephone networks that existed in the early 1990s had numerous problems, including the generation of “false roaming charges” that occurred when a caller subscribing to a cellular telephone network that covered one geographic area would suddenly begin using another network covering a neighboring geographic area even though the caller had never left his own network’s geographic area. Employees at a small regional wireless telephone provider in Youngstown, Ohio set out to invent a solution to the problem of having a caller physically located in the service territory of one service provider while using network equipment belonging to a different service provider.

The invention claimed in the ‘611 patent is generally described in the Abstract:

A cellular telephone system includes a plurality of cell sites and a mobile telephone switching office. Call management, including selection of a cell site most appropriate for a call associated with a mobile unit, are made based on the geographic location of the mobile unit as opposed to the strength of the signal associated with the call. The geographic location of the mobile unit is precisely determined using NAVSTAR global positioning system, or its equivalent. Each mobile unit includes a GPS receiver that receives information from a geostationary satellite to determine the precise location of the mobile unit. This position information is relayed to the cell site initially managing the mobile unit, and the mobile unit is handed off to a cell site that is most appropriate for the call. Initial selection of an entrance cell site is made based on signal strength, but further call management decisions are made based on location of the mobile unit.

The Abstracts of the ‘404, ‘822 and ‘763 generally describe the invention as follows:

A cellular telephone system has call management decisions made based on the exact geographic location of the mobile unit. These call management decisions include billing and taxing decisions, cell site selection, frequency selection and even cellular system selection. The decisions are continuously updated during a call whereby decisions can be made and changed regardless of where a call originated. Cell site locations, and even cellular system selection, can be made in a specific manner to best serve the needs of the mobile user, the cellular system as well as the public. It is even possible for a cellular system to locate one or more of its cell sites in the geographic area served by another cellular system. In some cases, cellular systems might even share cells.

## **II. Legal Standards Governing Claim Construction and Summary Judgment**

A patent confers the right to exclude others from making, using, or selling the invention defined by the patent’s claims. *Standard Oil Co. v. Am. Cynamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). A patent must describe the exact scope of an invention and its manufacture to secure to a patentee all to which he is entitled and to apprise the public of what is still open to it.

*Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996). Claim construction is a matter of law to be determined by the court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370.

In interpreting an asserted claim, “the court should first look to the intrinsic evidence of

record, *i.e.*, the patent itself, including the claims, the specification, and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). In the context of the intrinsic evidence, the court should first look to language of the claims themselves. *See id.* Words in a claim are generally given their ordinary and customary meaning as understood by one of ordinary skill in the art. *See id.*

Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, provided that the special definition of the term is clearly stated in the specification. Thus, the specification acts as a dictionary when it expressly defines a term used in the claim or defines it by implication. *Id.* Indeed, the specification of the patent is “the single best guide to the meaning of a disputed term.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005). As the *Phillips* Court stated:

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

*Phillips*, 415 F.3d at 1316. The prosecution history consists of the complete record of proceedings before the PTO and provides additional evidence as to how the PTO and the inventor understood the invention and whether the inventor limited the invention in the course of prosecution. *Id.* at 1317.

Although the Federal Circuit has emphasized the primary importance of the intrinsic evidence in claim construction, district courts are also authorized to rely on extrinsic evidence, consisting of “all evidence external to the patent and prosecution history, including expert and

inventor testimony, dictionaries and learned treatises” if the court deems such evidence helpful in determining the true meaning of language used in the claims. *Id.* Expert testimony can be useful to a court “to provide background on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* at 1318. “However, conclusory, unsupported assertions by experts as to the definition of a claim a term are not useful to a court.”

*Id.*

In construing the claim terms, the court must also determine whether any claim terms are invalid as being indefinite. The statutory requirement of definiteness states that the claims must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2. “[T]he purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee’s right to exclude.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005).

Summary judgment is appropriate in a patent case as it is in any other case. *Desper Prods. Inc. v. Qsound Labs, Inc.*, 157 F.3d 1325, 1332 (Fed. Cir. 1998). Pursuant to Federal Rule of Civil Procedure 56, summary judgment is appropriate when there is no genuine issue of any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P.56(c). “In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the party opposing the motion, with doubts resolved in favor of the opponent.” *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus.*, 145 F.3d 1303,

1307 (Fed. Cir. 1998). Further, a patent is presumed to be valid. *See 35 U.S.C. § 282* (“A patent shall be presumed valid. Each claim of a patent . . . shall be presumed valid independently of the validity of other claims.”) A party challenging the validity of a patent must prove its invalidity by clear and convincing evidence. *See Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1036 (Fed. Cir. 2001).

### **III. Construction of Disputed Claim Terms**

The Court has considered the parties’ briefs, arguments and evidence and now turns to construction of the disputed claim terms in accordance with the legal standards set out above.

#### **a. Exact Geographic Location**

The primary disputed claim term in the asserted patents is the term “exact geographic location.” All of the asserted patents concern what the patent applicants refer to as the “exact geographic location” of a cell phone and using that location to make decisions about operation of a wireless network, such as which wireless carrier and/or cell site should handle a call made to or from a cell phone. The term appears in claims 1, 2, and 5 of the ‘611 patent; claim 9 of the ‘404 patent; claims 10, 21, 24, 31, 34, 35, 36 and 37 of the ‘822 patent; and claims 2 and 23 of the ‘763 patent.<sup>1</sup>

Plaintiffs contend exact geographic location should be construed as: “a position in latitude and longitude having a degree of accuracy and precision typical of that obtained from a

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<sup>1</sup>For example, claim 1 of the ‘611 patent recites: “[a] method of making emergency call decisions . . . comprising . . . determining the exact geographic location of the mobile unit placing the call requesting emergency service.” Claim 9 of the ‘404 patent claims: “[a] method of making communication process management decisions in a wireless over-the-air communications system . . . comprising . . . establishing an exact geographic location for a mobile unit.”

Global Positioning System (GPS), LORAN, or other position determining system.” Plaintiffs contend this construction is supported by the specification of an earlier, unasserted patent to which the asserted patents claim priority, U.S. Patent No. 5,235,633 issued August 10, 1993 (the ‘633 patent). Specifically, Plaintiffs refer to the following provisions of the ‘633 specification:

The exact geographic location of each mobile unit is determined using a Global Positioning System (GPS), LORAN, or other position determining system. The NAVSTAR global positioning system, or GPS, is a system employing ultimately eighteen satellites . . .

(‘633 Patent, 3:35-36.)

Based on the signals received from the satellite, the exact position in longitude and latitude, of the ground based receiver can be determined with an extremely high degree of accuracy and precision.

(‘633 Patent, 3:57-61.)

It is understood that the GPS is used as an example of the preferred source of positional data; however, other sources similar to the GPS can be used without departing from the scope of the present invention. All that is required is that the source of positional data be able to generate precise and accurate locational data on a fixed or a rapidly moving object.

(‘633 Patent, 5:64-68; 6:1-3.)

Plaintiffs also point out that the specification of the ‘404 patent refers to GPS and Loran-C (a specific type of LORAN) as location technology that can be used in the inventions. The specification of the ‘404 patent states: “With GPS location devices or Loran-C or any other type of location technology used to locate the satellite mobile phones, the problem can be avoided using the system disclosed herein.” (‘404 Patent, 14:43-46.)

Defendants contend the term exact geographic location is insolubly ambiguous because there is no dispute that the term does not mean complete mathematical accuracy and a person of ordinary skill in the art reading the patents would not be able to ascertain how accurately and

precisely a geographic location must be determined in order to fall within the scope of the term.

In the alternative, Defendants contend exact geographic location can be construed only with reference to what Defendants contend the patent applicants claimed did not comprise exact geographic location during prosecution. In this regard, Defendants propose the following construction: “a precise and accurate position in latitude and longitude that is not determined using cell site ID, coverage area, signal strength, two-way ranging, hyperbolic ranging, or triangulation.”

Defendants’ expert testified that at the time of the 1991 application, there were numerous position determining systems known and available in the art that could be used to determine the position of a mobile unit and these systems had varied degrees of accuracy. Defendants argue that the patents themselves do not state a specific degree of accuracy required and do not provide guidance as to how accurate and precise position determining systems must be; nor do the claims of the patents limit determining geographic location by GPS or LORAN. Defendants also argue that the patent applicants distinguished other positioning technologies during prosecution. Specifically, the patent applicants distinguished Schaible (which disclosed determining a mobile unit location using signal strength) and Comroe (which disclosed using cell site location).

Plaintiffs contend a position determining system as used in the patents is one that provides locational data in terms of latitude and longitude and a person of ordinary skill in the art would know what degree of precision and accuracy could be achieved by GPS and Loran, the position determining systems cited as examples in the patent specifications.

The Court has reviewed the pertinent patent claims as well as the parties’ briefs and arguments and the transcript of the *Markman* hearing. After considering all of the submitted

materials, the Court agrees with the construction of “exact geographic location” recently determined by Magistrate Judge Everingham in the related but later-filed case, *EMSAT Advanced Geo-Location Technology, LLC, et al. v. MetroPCS Communications, Inc., et al.* (Case No. 2:08-CV-00381) (E.D. Texas). After considering essentially the same arguments and materials at issue here, Magistrate Judge Everingham declined to find the term “exact geographic location” insolubly ambiguous and construed the term as: “a position in longitude and latitude, not determined using signal strength or cell site location techniques, having a degree of accuracy and precision typical of GPS and LORAN systems available at the time of the invention.” In reaching this construction, Magistrate Judge Everingham found that the patent applicants disclaimed signal strength and cellsite location techniques during prosecution but did not clearly and unmistakably disclaim the other position determining methods identified in Defendants’ alternative construction (*i.e.*, cell site ID, coverage area, signal strength, two-way ranging, or hyperbolic ranging).

This Court agrees with the analysis of Magistrate Judge Everingham. The word “exact” was added by the patent applicants to modify “geographic location” in 1992 after the patent examiner assigned to the 1991 application rejected all of the claims in light of two prior art patents: U.S. Patent No. 4,229,620 to Schaible and U.S. Patent No. 5,054,110 to Comroe. Comroe disclosed the use of cell site ID or coverage area to locate a mobile unit. Schaible disclosed using signal strength. The applicants claimed that these technologies did not identify the exact geographic location of a mobile unit; thus, these methods were clearly disclaimed. However, the Court does not find the applicants clearly and unmistakably disclaimed the other techniques identified in Defendants’ alternative construction.

Accordingly, exact geographic location is construed as: “a position in longitude and latitude, not determined using signal strength or cell site location techniques, having a degree of accuracy and precision typical of GPS and LORAN systems available at the time of the invention.”<sup>2</sup> In that the Court finds the term exact geographic location capable of construction, Defendants’ Motion for Partial Summary Judgment of Invalidity is denied.

**b. Inaccuracy Terms**

The parties dispute whether “inaccuracy” terms appearing in claim 1 of the ‘763 patent require construction. Claim 1 of the ‘763 patent recites:

1. A telecommunications system, comprising:  
a data storage system for recording a geographic location associated with a mobile unit identification number, and  
an updating system responsive to **an inaccuracy in the geographic location** associated with the mobile unit identification number that exceeds an interval defined by said updating system, and **in response thereto** updating said data storage system to identify an updated geographic location for said mobile unit identification number.

(‘763 Patent, col. 17:5-16) (emphasis added.)

Defendants contend the term “an inaccuracy in the geographic location” requires construction and propose the following construction: “a determination that the mobile unit’s geographic location has changed from the recorded geographic location by a distance that is greater than an interval.” (‘763 Patent, 17:10-16.) Defendants also maintain the phrase “in

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<sup>2</sup>The Court is aware that the defendants in *Centennial* have filed objections to Magistrate Judge Everingham’s R&R, in particular, arguing that the Magistrate Judge’s construction of exact geographic location is also ambiguous. However, the Court does not find the construction insolubly ambiguous and finds Plaintiffs’ argument persuasive that one of ordinary skill in the art would know what accuracies were typical of GPS and Loran systems at the time of the invention.

response thereto” requires construction to make clear that the phrase refers back to “the determination that there is an inaccuracy in the geographic location . . . that exceeds an interval.”

Plaintiffs contend the inaccuracy terms identified by Defendants require no construction. They argue there is nothing in the language in claim 1 that limits the “interval” to a distance that is greater than an interval. Plaintiffs’ position is persuasive. The “updating system” in claim 1 responds when the geographic location of the mobile unit identification number changes. It does so by checking for a change when a certain interval is exceeded. The language in claim 1 does not limit the interval to a distance traveled. Therefore, Defendants’ proposed construction is inaccurate. The phrase “in response thereto” does not require construction because the phrase, on its face, is in response to what precedes it, *i.e.*, “an inaccuracy in the geographic location associated with the mobile unit identification number that exceeds an interval defined by said updating system.”

The Court does not find Defendants’ proposed constructions accurate or helpful to a jury and declines to construe the inaccuracy terms.

### **c. Subsequent Services**

The parties next dispute the construction of the term “subsequent services” found in claims 10 and 24, and 34-37 of the ‘822 patent. Claim 10 recites: “a data storage system for recording said exact geographic location and specific mobile unit identification for use in subsequent services.”

Plaintiffs initially proposed the following construction: “a service that obtains the recorded exact geographic location and mobile unit identification after completion of the communication process that recorded them.” Later, Plaintiffs offered the following alternative

construction based on an interpretation of subsequent services by the USPTO in a decision granting *inter partes* reexamination of the ‘822 patent: “Services occurring during a call in progress, including emergency 911, taxes, CP rating, message unit, customer service frequency selection, changing frequencies, changing cell site (handover) and changing cell system.”

Defendants contend “subsequent services” means: “subscriber services occurring after the communication process between the network and the specific mobile unit has ended.” Intervenor Google also proposes a construction that construes a “subsequent service” as occurring after the communication process between the network and the specific mobile unit has ended but which further limits services to “call management decisions.” Google proposes that “subsequent services” are: “call management decisions for a wireless communication (including billing, taxing and/or routing) occurring after the communication process between the network and the specific mobile unit has ended.”<sup>3</sup>

The specification does not use the term “subsequent services.” Figure 8 of the ‘822 patent depicts both “Online Uses (Real Time)” (the left-hand column of Figure 8) and “One-Time Offline Uses” (the right hand column of Figure 8). Plaintiffs contend Figure 8 supports their position because both the online and offline uses identified in Figure 8 occur after the exact geographic location and specific mobile unit identification have been recorded. Defendants contend Figure 8 supports their construction because the “communication process” depicted in Figure 8 encompasses the entire process from registration (the start of a call) through completion of the communication between the network and the mobile unit (end of the call). Only the “one-

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<sup>3</sup>Google agrees with Defendants’ proposed constructions as to all disputed claim terms except “subsequent services” and “location based services.”

time off line uses” depicted in the right hand column of figure 8 occur after the communication process (or call) has ended.

Magistrate Judge Everingham declined to adopt Defendants’ construction and construed subsequent services as: “a service that occurs after the exact geographic location and specific mobile unit identification have been recorded.” The Magistrate Judge reasoned that subsequent services are not limited to offline services that occur after a call ends because claim 21 of the ‘822 patent, which depends from claim 10, further limits the “data storage” element as follows: “The cellular communications system of claim 10 wherein said data storage system makes said exact geographic location information accessible for emergency services provisioning.” Since provisioning of emergency calls made during a non-emergency communication process ('822 patent, 13:1-3, Fig. 8 block 120) must occur before the call has ended, subsequent services cannot be limited to only the one-time off-line uses.

The Court agrees with this reasoning of Magistrate Judge Everingham and therefore likewise construes the term “subsequent services” as: “a service that occurs after the exact geographic location and specific mobile unit identification have been recorded.”

#### **d. Location-Based Service/ “Service Provider”**

The next parties dispute the proper construction of the term “location-based service.” The term appears in claims 23 and 32 of the ‘763 patent. Claim 23 recites: “A method of providing a location-based service comprising the steps of . . . receiving a request for a location-based service from the mobile unit; . . . comparing the positional data with stored geographic data for the location-based service; and responding to the request for a location-based service based on the comparison.” “Location-based service” is also not addressed in the specification.

Plaintiffs contend location-based service should be construed as: “a service providing information based, at least in part, on the location of the mobile unit.” Defendants contend a location-based service is limited to wireless communications service and urge the following construction: “wireless communications service provided based on the location of the mobile unit.” Google proposes something even more limited: “call management decision for a wireless communication, including billing, taxing and/or routing based on the location of the mobile unit.” Google’s construction is related to Defendants’ separate argument that a “service provider,” as used in claim 9 of the ‘404 patent must be limited to a provider of wireless communication service.<sup>4</sup>

Defendants argue a location-based service is a wireless communication service because whenever the term location-based service is referred to in the specification without qualification, the term always refers to wireless service providers. However, the specification also refers to “emergency service providers,” which are not wireless service providers. In particular, the specification provides: “It is another object of the invention to provide a wireless over-the-air communications system that can efficiently work with emergency service providers.” (‘404 Patent, 8:25-27.) In addition, claim 39 of the ‘404 patent recites: “The wireless over-the-air communications system defined in claim 28 wherein said service provider includes an emergency service provider.” (‘404 Patent, 22:39-41.)

These provisions indicate that the term “service provider” is not limited to wireless service providers. Hence, the Court will not so construe the term and finds that the term “service

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<sup>4</sup>The preamble of the ‘404 patent’s claim 9 recites: “A method of making communication process management decisions in a wireless over-the-air communication system having a plurality of service providers and an MTSO comprising . . .”

provider” requires no construction. The term “location-based service” is construed as: “a service based on the location of the mobile unit.”

**e. Override Criteria**

Claim 9 of the ‘404 patent recites: “A method of making communications process management decisions in a wireless over-the-air communications system . . . comprising . . . A) establishing an exact geographic location for a mobile unit; B) establishing override criteria from a group consisting of billing, taxing, CP (communications process) rating, service requested by a user of a mobile unit and CMR (cellular mobile radio) system; and C) directing the communication process to a specific service provider associated with the service requested by the user of the mobile unit based on the override criteria without further input from the user of the mobile unit.” Thus, step (a) of claim 9 establishes the exact geographic location of the mobile unit; step (b) establishes override criteria; and step (c) directs the communication process to a specific service provider based on the override criteria.

The parties dispute whether the phrase override criteria is singular or plural and whether override criteria must be based on the exact geographic location of the mobile unit. Plaintiffs contend the phrase “override criteria” means: “A preemptive rule for deciding, updating, or adjusting something.” Defendants propose the following construction: “two or more rules that alter the operation of the system based on the exact geographic location of the mobile unit.”

The claim language of the claim is clearly drafted to require the plural “criteria” and therefore Defendants’ construction specifying “two or more rules that alter the operation of the system” is correct in this regard. Defendants contend exact geographic location must be incorporated into the construction of override criteria in order for the claim to make sense in

light of the specification and prosecution history. The specification provides: “These, and other, objects are achieved by a CMR system that allows the Exact Geographic Location (EGL) of a communications device to be tracked and compared to geographic land data and information data and to continuously update this information during the communication process whereby the proper and most efficient service is provided, including proper communication process management and billing decisions.” (‘404 Patent, 8:46-54.) During prosecution, the applicants argued:

[A]pplicants have devised a call management system that makes call management decisions based on the exact geographic location of the mobile unit. These call management decisions include determining billing rates, taxes, CP rating customer service requested and CMR system selection. Each of these decisions is made by the system and the call is automatically completed or continued in the most efficient and accurate manner without requiring any input from the user.

(August 18, 1999 Amendment, at 12.)

Defendants argue that although the first step of claim 9 requires “establishing an exact geographic location,” there is nothing in the language of claim 9 that expressly links that step with anything else or that otherwise correlates the geographic location of the mobile unit to call management decisions. Rather, the only “decision” recited in claim 9 is “directing the communication process . . . based on the override criteria.” Thus, Defendants argue, a person of ordinary skill in the art would understand that, as used in claim 9 of the ‘404 Patent, the term “override criteria” must by “based on the exact geographic location of the mobile unit.”

The Court finds Defendants’ argument persuasive in light of the specification and prosecution history. Thus, “override criteria” is construed as: “two or more rules that alter or adjust the operation of the system based on the exact geographic location of the mobile unit.”

#### **f. Triangulation**

The term “triangulation” is found in claims 29 through 31 of the ‘763 patent. The parties agree that triangulation is a method of calculating the location of an object or point using the locations of two known points. The parties dispute (1) whether triangulation in the claims of the ‘763 patent requires “determining angles” or “forming a triangle” and (2) whether the techniques used in LORAN would fall within the scope of the term. Plaintiffs contend triangulation is: “A method of calculating an unknown point, used by position determining systems such as LORAN, by forming a triangle having the unknown point and two known points in the vertices.” Defendants propose: “a method of calculating the location of an object by determining the angles from the object to two points having known locations.”

The specification of the ‘763 patent treats triangulation as distinct from LORAN. According to the ‘763 patent specification, “[t]he first step in the registration process, block 102 is to determine the exact geographic location, block 201 of the communications device via either GPS, block 202, signal strength, block 203, Loran, block 204, triangulation or other similar location means.” (‘763 Patent, 11:34-39.) Therefore, the Court does not find that Loran techniques fall within the scope of the term “triangulation.”

The parties have each presented dictionary definitions defining triangulation to support their respective positions as to whether triangulation requires “determining angles” or “forming a triangle.” The Court finds both methods consistent with triangulation and construes triangulation as: “a method of calculating the location of an unknown point or object by determining the angles from the object to two points having known locations or by forming a triangle having the unknown point and two known points in the vertices.”

**g. Order of Steps for Claim 1 of the ‘611 Patent**

Claim 1 of the '611 patent recites:

1. A method of making emergency call decisions in a cellular telephone system having a plurality of cell sites at various geographic locations comprising:
  - A) providing a mobile unit which can be located at various and changeable geographic locations;
  - B) using the mobile unit to place a call requesting emergency service via a cellular telephone system;
  - C) determining the exact geographic location of the mobile unit placing the call requesting emergency service;
  - D) storing geographic associated with the cellular telephone system and which are required to complete the call requesting emergency service;
  - E) comparing the exact geographic location of the mobile unit placing the call requesting emergency service to the stored geographic data; and
  - F) automatically routing the mobile unit call requesting emergency service to an emergency service based on the comparison regardless of cell site location.

Defendants seek a construction of step E following steps C and D and of step F following step E. Plaintiffs do not dispute Defendants' ordering of steps but contend no construction is necessary because the ordering of steps is clear and unambiguous.

To clarify the meaning of Claim 1, the Court adopts Defendants' constructions: Step E is construed as "following steps C and D" and step F is construed as "following step E."

#### **h. Mobile Identification Number**

The phrase "mobile identification number" is found in claim 1 of the '763 patent. Claim 1 recites: "A method of providing a location-based service comprising the steps of . . . obtaining a unique mobile identification number from a mobile unit via cellular communication system comprising a plurality of networked antennas, the mobile unit being in radio contact with at least one of the networked antennas." ('763 Patent, 18:39-44.)

The specification of the ‘763 patent provides that the use of a typical cellular telephone unit having a unique mobile identification number was “known to those skilled in [the] art” and therefore such units were not described in detail in the patents. (‘763 Patent, 2:18-23.) Defendants contend the phrase “mobile identification number” should be construed for the jury in accordance with the meaning of the phrase “mobile identification number” or “MIN” as understood by those skilled in the art: “a 10-digit number that identifies a mobile unit, including a 7-digit directory number and a 3-digit area code.”

Plaintiffs do not dispute Defendants construction of a MIN but argue that the phrase “unique mobile identification number” as used in the patent is not a MIN and requires no construction.

However, the Court finds Defendants’ argument persuasive that the phrase unique “mobile identification number” (or simply, “mobile identification number”) refers to a MIN. Accordingly, the Court construes the phrase as: “a 10-digit number that identifies a mobile unit, including a 7-digit directory number and a 3-digit area code.”

#### **IV. Conclusion**

The constructions set forth above in this opinion are hereby adopted for the disputed claim terms of the ‘611, ‘404, ‘822 and ‘763 patents. Defendants’ Motion for Partial Summary Judgment of Invalidity (Case No. 08 CV 817, Doc. 94; Case No. 08 CV 822, Doc. Nos. 115, 116) is denied.

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IT IS SO ORDERED.

Date: August 23, 2010

/s/ *John R. Adams*  
JOHN R. ADAMS  
United States District Judge